

Description

The 5.0SMDJ series are transient voltage suppressor designed to protect sensitive electronic equipment from lightning and transient voltage events.

Features

- 5000W Peak Pulse Power (10/1000 μ s)
- Fast Response Time: <1ns
- Unidirectional or Bidirectional Configuration
- Low Profile Package
- Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
 - Air discharge: ± 30 kV
 - Contact discharge: ± 30 kV
- RoHS Compliant

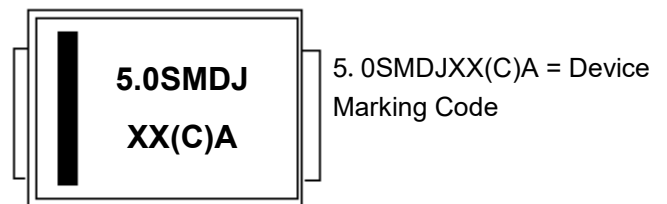
Mechanical Characteristics

- Package: DO-214AB
- Lead Finish: Matte Tin
- Case Material: “Green” Molding Compound.
- Terminal Connections: See Diagram Below
- Marking Information: See Below

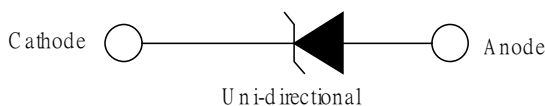
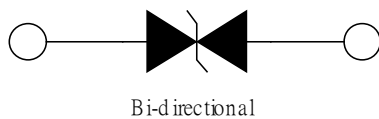
Applications

- I/O Interface
- AC/DC Power supply
- Low frequency signal transmission line (RS232, RS485, etc.)

Marking Information



Device Schematic



Device Schematic

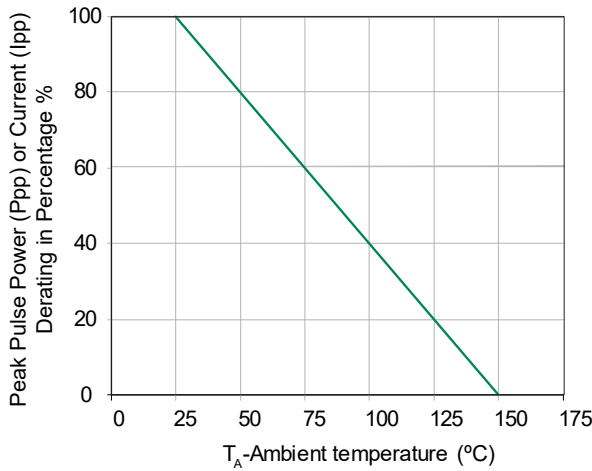
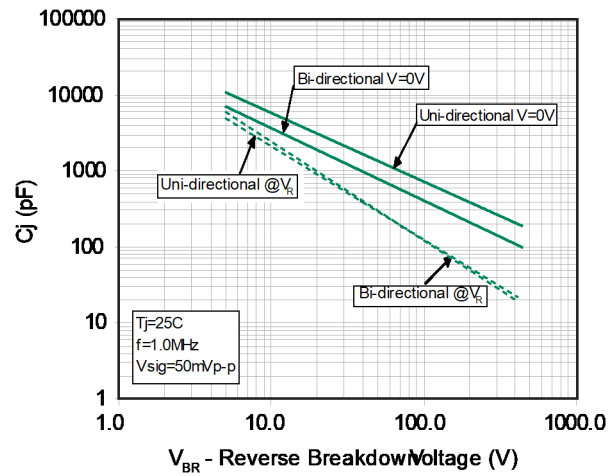
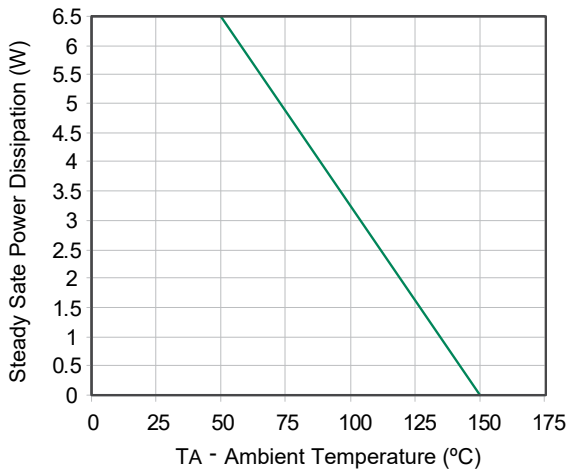
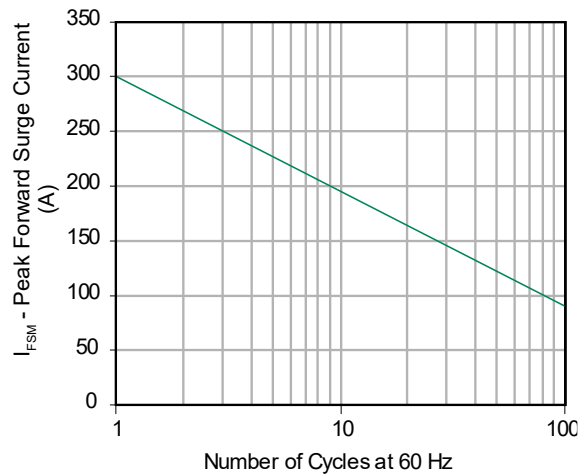
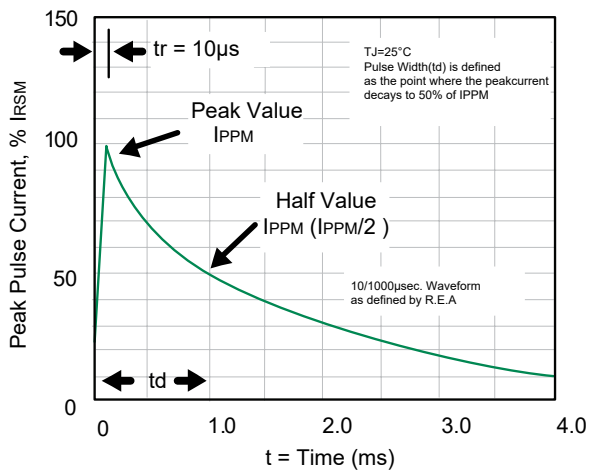
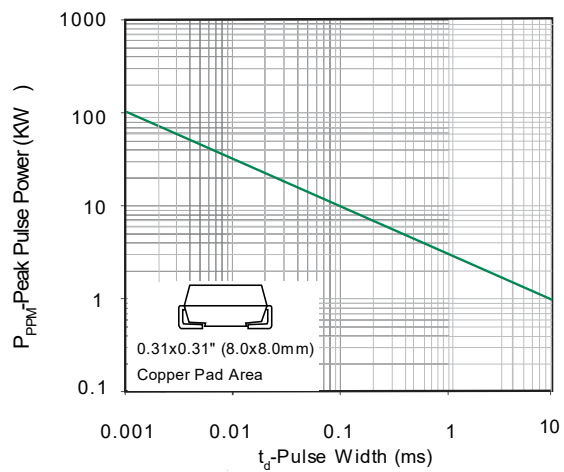
Ordering Information

Part Number	Packaging	Reel Size
5.0SMDJxx(C)A	3000/Tape & Reel	13 inch

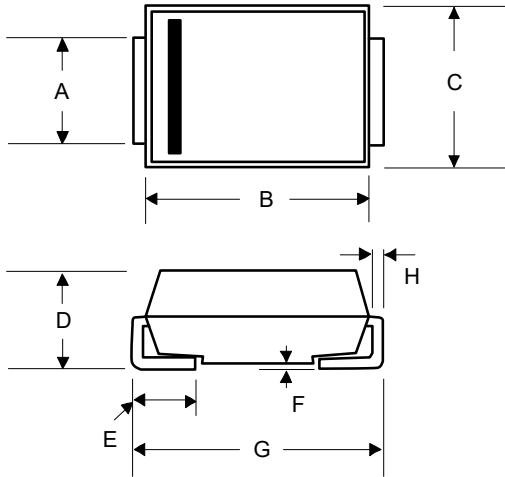
Electrical Characteristics (T_A=25°C unless otherwise specified)

Part Number		Marking		VR	IR@VR	VBR@IT		IT	VC@IPP	IPP
Uni-Polar	Bi-Polar	Uni	Bi	V	µA	min(V)	max(V)	mA	max(V)	A
5.0SMDJ12A	5.0SMDJ12CA	5.0SMDJ12A	5.0SMDJ12CA	12.0	800	13.3	14.7	1	19.9	252
5.0SMDJ13A	5.0SMDJ13CA	5.0SMDJ13A	5.0SMDJ13CA	13.0	500	14.4	15.9	1	21.5	233
5.0SMDJ14A	5.0SMDJ14CA	5.0SMDJ14A	5.0SMDJ14CA	14.0	200	15.6	17.2	1	23.2	216
5.0SMDJ15A	5.0SMDJ15CA	5.0SMDJ15A	5.0SMDJ15CA	15.0	100	16.7	18.5	1	24.4	205
5.0SMDJ16A	5.0SMDJ16CA	5.0SMDJ16A	5.0SMDJ16CA	16.0	50	17.8	19.7	1	26	193
5.0SMDJ17A	5.0SMDJ17CA	5.0SMDJ17A	5.0SMDJ17CA	17.0	20	18.9	20.9	1	27.6	181
5.0SMDJ18A	5.0SMDJ18CA	5.0SMDJ18A	5.0SMDJ18CA	18.0	10	20.0	22.1	1	29.2	172
5.0SMDJ20A	5.0SMDJ20CA	5.0SMDJ20A	5.0SMDJ20CA	20.0	5	22.2	24.5	1	32.4	155
5.0SMDJ22A	5.0SMDJ22CA	5.0SMDJ22A	5.0SMDJ22CA	22.0	5	24.4	26.9	1	35.5	141
5.0SMDJ24A	5.0SMDJ24CA	5.0SMDJ24A	5.0SMDJ24CA	24.0	5	26.7	29.5	1	38.9	129
5.0SMDJ26A	5.0SMDJ26CA	5.0SMDJ26A	5.0SMDJ26CA	26.0	5	28.9	31.9	1	42.1	119
5.0SMDJ28A	5.0SMDJ28CA	5.0SMDJ28A	5.0SMDJ28CA	28.0	5	31.1	34.4	1	45.4	110
5.0SMDJ30A	5.0SMDJ30CA	5.0SMDJ30A	5.0SMDJ30CA	30.0	5	33.3	36.8	1	48.4	103
5.0SMDJ33A	5.0SMDJ33CA	5.0SMDJ33A	5.0SMDJ33CA	33.0	5	36.7	40.6	1	53.3	93.9
5.0SMDJ36A	5.0SMDJ36CA	5.0SMDJ36A	5.0SMDJ36CA	36.0	5	40.0	44.2	1	58.1	86.1
5.0SMDJ40A	5.0SMDJ40CA	5.0SMDJ40A	5.0SMDJ40CA	40.0	5	44.4	49.1	1	64.5	77.6
5.0SMDJ43A	5.0SMDJ43CA	5.0SMDJ43A	5.0SMDJ43CA	43.0	5	47.8	52.8	1	69.4	72.1
5.0SMDJ45A	5.0SMDJ45CA	5.0SMDJ45A	5.0SMDJ45CA	45.0	5	50.0	55.3	1	72.7	68.8
5.0SMDJ48A	5.0SMDJ48CA	5.0SMDJ48A	5.0SMDJ48CA	48.0	5	53.3	58.9	1	77.4	64.7
5.0SMDJ51A	5.0SMDJ51CA	5.0SMDJ51A	5.0SMDJ51CA	51.0	5	56.7	62.7	1	82.4	60.7
5.0SMDJ54A	5.0SMDJ54CA	5.0SMDJ54A	5.0SMDJ54CA	54.0	5	60.0	66.3	1	87.1	57.5
5.0SMDJ58A	5.0SMDJ58CA	5.0SMDJ58A	5.0SMDJ58CA	58.0	5	64.4	71.2	1	93.6	53.5
5.0SMDJ60A	5.0SMDJ60CA	5.0SMDJ60A	5.0SMDJ60CA	60.0	5	66.7	73.7	1	96.8	51.7
5.0SMDJ64A	5.0SMDJ64CA	5.0SMDJ64A	5.0SMDJ64CA	64.0	5	71.1	78.6	1	103	48.6
5.0SMDJ70A	5.0SMDJ70CA	5.0SMDJ70A	5.0SMDJ70CA	70.0	5	77.8	86.0	1	113	44.3
5.0SMDJ75A	5.0SMDJ75CA	5.0SMDJ75A	5.0SMDJ75CA	75.0	5	83.3	92.1	1	121	41.4
5.0SMDJ78A	5.0SMDJ78CA	5.0SMDJ78A	5.0SMDJ78CA	78.0	5	86.7	95.8	1	126	39.7
5.0SMDJ85A	5.0SMDJ85CA	5.0SMDJ85A	5.0SMDJ85CA	85.0	5	94.4	104.0	1	137	36.5
5.0SMDJ90A	5.0SMDJ90CA	5.0SMDJ90A	5.0SMDJ90CA	90.0	5	100	111.0	1	146	34.3
5.0SMDJ100A	5.0SMDJ100CA	5.0SMDJ100A	5.0SMDJ100CA	100.0	5	111	123.0	1	162	30.9

Part Number		Marking		VR	IR@V R	VBR@IT		IT	VC@IPP	IPP
Uni-Polar	Bi-Polar	Uni	Bi	V	μA	min(V)	max(V)	mA	max(V)	A
5.0SMDJ110A	5.0SMDJ110CA	5.0SMDJ110A	5.0SMDJ110CA	110.0	5	122	135.0	1	177	28.3
5.0SMDJ120A	5.0SMDJ120CA	5.0SMDJ120A	5.0SMDJ120CA	120.0	5	133	147.0	1	193	26
5.0SMDJ130A	5.0SMDJ130CA	5.0SMDJ130A	5.0SMDJ130CA	130.0	5	144	159.0	1	209	24
5.0SMDJ150A	5.0SMDJ150CA	5.0SMDJ150A	5.0SMDJ150CA	150.0	5	167	185.0	1	243	20.6
5.0SMDJ160A	5.0SMDJ160CA	5.0SMDJ160A	5.0SMDJ160CA	160.0	5	178	197.0	1	259	19.3
5.0SMDJ170A	5.0SMDJ170CA	5.0SMDJ170A	5.0SMDJ170CA	170.0	5	189	209.0	1	275	18.2
5.0SMDJ180A	5.0SMDJ180CA	5.0SMDJ180A	5.0SMDJ180CA	180.0	5	201	222.0	1	292	17.5
5.0SMDJ190A	5.0SMDJ190CA	5.0SMDJ190A	5.0SMDJ190CA	190.0	5	211	233	1	308	16.5

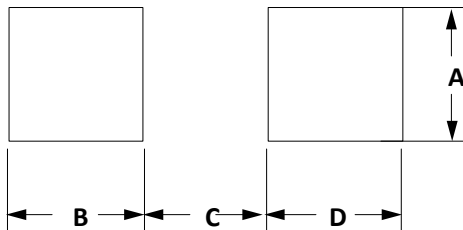
Typical Performance Characteristics ($T_A=25^\circ\text{C}$ unless otherwise Specified)

Pulse Derating Curve

Typical Junction Capacitance

Steady State Power Dissipation Derating Curve

Peak Forward Surge Current

Pulse Waveform

Peak Pulse Power Rating

DO-214AB Package Outline Drawing



SYM	DIMENSIONS			
	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	2.900	3.200	0.114	0.126
B	6.600	7.110	0.260	0.280
C	5.590	6.220	0.220	0.245
D	2.060	2.620	0.079	0.103
E	0.760	1.520	0.030	0.060
F	-	0.203	-	0.008
G	7.750	8.130	0.305	0.320
H	0.152	0.305	0.006	0.012

Suggested Land Pattern



SYM	DIMENSIONS	
	MILLIMETERS	INCHES
A	3.30	0.129
B	2.40	0.094
C	4.20	0.165
D	2.40	0.094

Contact Information

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